

3 chopped fibres in the range of from 95:5% to 5:95% by weight of the mixture  
4 respectively.

1 5. (Amended) A substrate according to claim 4, wherein the  
2 amorphous silica fibres comprise a mixture of both microfibrils and chopped fibres  
3 in the range of from 70:30% to 30:70% by weight of the mixture respectively.

1 6. (Amended) A substrate according to [any preceding] claim 1,  
2 wherein the fibres have a diameter in the range of from 0.1µm to 50µm.

1 7. (Amended) A substrate according to claim 6, wherein the  
2 fibres have a diameter in the range of 0.4µm to 9µm.

1 8. (Amended) A substrate according to [any preceding] claim 1,  
2 wherein the binder comprises a solution or dispersion of ion-exchange polymeric  
3 materials, non-ion-conducting polymers, or inorganic materials or mixtures thereof.

1 9. (Amended) A substrate according to [any preceding] claim 1  
2 for use in the preparation of a composite membrane.

1 10. (Amended) A composite membrane comprising a porous  
2 substrate of fibres and at least one ion-conducting polymer, characterised in that the  
3 substrate [is one according to any preceding claim, which] comprises a porous  
4 matrix of mixed amorphous silica fibres bound with a binder.

1 11. (Amended) A composite membrane according to claim 10,  
2 which when [tested by the method described herein in the Examples, results in]  
3 dried then boiled in water undergoes less than or equal to about ±9% change in the  
4 area.

1 12. (Amended) A composite membrane according to claim 10,  
2 [or claim 11] wherein the total thickness of the membrane is less than 200µm.

1 13. (Amended) A composite membrane according to [any one of  
2 claims] claim 10 [to 12] for use in a fuel cell.

1                   14.    (Amended) A process for the manufacture of a substrate  
2   [according to any one of claims 1 to 9], [which process comprises] comprising the  
3   steps of

- 4                   (a)    dispersing [the] mixed amorphous silica fibres in water to  
5                        form a slurry;  
6                   (b)    depositing the slurry onto a mesh bed to form a network;  
7                   (c)    drying and compacting the fibre network; and  
8                   (d)    applying, before or after step (c), a dispersion of binder.

1                   15.    (Amended) A process for the manufacture of a membrane  
2   [according to any one of claims 10 to 13], [which process comprises] comprising  
3   the steps of

- 4                   (i)    forming a porous substrate [of, preferably randomly  
5                        orientated individual mixed amorphous silica fibres bound  
6                        with a binder by a process] according to claim 14; and  
7                        thereafter,  
8                   (ii)    impregnating the porous substrate with a polymeric material  
9                        to produce a membrane.

1                   17.    (Amended) A membrane electrode assembly comprising [a  
2   substrate according to any one of claim 1 to 9 and/or] a composite membrane  
3   according to [any one of claims] claim 10 [to 13].

1                   18.    (Amended) A fuel cell comprising [a substrate according to  
2   any one of claim 1 to 9 and/or] a composite membrane according to [any one of  
3   claims] claim 10 [to 13].

Claim 19 has been added.